

AMENDMENTS TO THE CLAIMS

The listing of claims below replace all prior versions, and listings, of claims:

1 1. (Original) A system comprising:
2 an interface to receive a request from a client system for information in a
3 database system; and
4 a controller to format metadata associated with the requested information
5 into a format for display in the client system,
6 the controller further to map plural data types in the database system to
7 corresponding file types to enable presentation in the client system of an object having an
8 associated data type retrieved from the database system.

1 2. (Original) The system of claim 1, wherein the controller comprises a
2 network communications service to receive the request from the client system.

1 3. (Original) The system of claim 2, wherein the network communications
2 service comprises a Hypertext Transport Protocol service.

1 4. (Original) The system of claim 1, the controller to format the metadata
2 into a predetermined format displayable by a browser.

1 5. (Original) The system of claim 4, wherein the predetermined format
2 comprises a format selected from the group consisting of a Hypertext Markup Language
3 format, an Extensible Markup Language format, and a Wireless Markup Language
4 format.

1 6. (Original) The system of claim 1, wherein the database system comprises
2 an object relational database system.

AI 1 7. (Original) The system of claim 1, wherein the plural data types comprise
2 two or more of the following: audio data, video data, multimedia data, image data, and
3 geospatial data.

1 8. (Original) The system of claim 1, further comprising a storage element
2 containing an object retrieved from the database system, the controller to communicate
3 data in the object as a stream to the client system.

1 9. (Original) The system of claim 8, wherein the controller communicates
2 portions of the object to the client system in the stream so that the entire object need not
3 be communicated to the client system for storage.

1 10. (Original) The system of claim 1, wherein the metadata comprises a
2 hyperlink.

1 11. (Original) The system of claim 10, the interface to receive a second
2 request indicating selection of the hyperlink, the hyperlink corresponding to the object in
3 the database system.

1 12. (Original) The system of claim 11, the controller to determine a data type
2 of the object and to map the data type to a corresponding file type.

1 13. (Original) The system of claim 1, wherein the metadata contains a
2 description of plural objects in the database system.

1 14. (Original) The system of claim 13, wherein the description comprises
2 hyperlinks corresponding to the plural objects.

1 15. (Currently Amended) A method of accessing an object relational database,
2 comprising:

3 loading an applet over a network from a server;

4 executing the applet to present an interactive interface in a browser display
5 screen to receive user queries and to send requests for information from the object
6 relational database in response to the user queries;

7 receiving metadata relating to requested information from the object
8 relational database;

9 displaying at least a portion of the metadata as a hyperlink;

10 in response to selection of the hyperlink, sending a request for an object in
11 the object relational database, the object containing information associated with the
12 selected metadata portion; and

13 associating the object with one of plural presentation routines to present
14 the information in the object.

1 16. (Currently Amended) The method of claim 15, further comprising
2 displaying the metadata in [[a]] the browser screen.

1 17. (Original) The method of claim 16, further comprising associating plural
2 data types stored in the object relational database with corresponding plural file types.

1 18. (Original) The method of claim 17, wherein associating the object with
2 one of plural presentation routines is based on the file type of the object.

1 19. (Original) The method of claim 15, further comprising invoking the one
2 presentation routine as a plug-in to a browser.

AI
1 20. (Currently Amended) An article comprising at least one storage medium
2 containing instructions that when executed cause a first system to:

3 receive a request from a client system for data in a database;
4 retrieve the data from the database; and
5 determine a data type of the retrieved data and map the data type to a file
6 type presentable by the client system,

7 wherein mapping the data type to the file type comprises accessing a data
8 structure that maps plural data types associated with data stored in the database with
9 corresponding plural file types presentable by the client system.

1 21. (Original) The article of claim 20, wherein the instructions when executed
2 cause the first system to:

3 retrieve metadata describing the requested data; and
4 format the metadata according to a predetermined format displayable by
5 the client system.

1 22. (Original) The article of claim 21, wherein the predetermined format
2 comprises one of a Hypertext Markup Language format, an Extensible Markup Language
3 format, and a Wireless Markup Language format.

1 23. (Original) The article of claim 21, wherein the metadata comprises a
2 hyperlink, the instructions when executed causing the first system to receive activation of
3 the hyperlink and to retrieve the data in response to the activation of the hyperlink.

1 24. (Original) The article of claim 20, wherein the instructions when executed
2 cause the first system to retrieve an object from an object relational database.

1 25. (Original) The article of claim 20, wherein the database stores rules
2 pertaining to presentation of the data in the client system, the instructions when executed
3 causing the first system to access the rules to map the data type to the file type.

A1

1 26. (Currently Amended) A database system comprising:
2 one or more storage devices containing an applet and a document;
3 an interface to a network; and
4 a controller to communicate the document to a client device, the document
5 containing data defining a page displayable in a browser screen, and the applet containing
6 instructions that when executed provide an interactive portion of the browser screen to
7 enable user entry of Structured Query Language (SQL) queries,
8 the applet responsive to SQL queries entered in the interactive portion of
9 the browser screen by sending corresponding requests for accessing data in a database
10 system.

1 27. - 29. (Cancelled)

A2

1 30. (New) The system of claim 1, wherein the controller is adapted to
2 communicate the requested information and executable code associated with the
3 requested information to the client system, the executable code for presenting the
4 requested information in the client system.

1 31. (New) The system of claim 1, wherein the controller is adapted to further
2 receive presentation information stored in the database system, the presentation
3 information defining a manner in which the requested information is to be presented by
4 the client system.

1 32. (New) The system of claim 31, wherein the controller is adapted to use the
2 presentation information to map the data types to the file types.

1 33. (New) The system of claim 1, further comprising a storage to store a data
2 structure mapping plural data types of data stored in the database system to file types
3 presentable by the client system.

A. 1 34. (New) The method of claim 15, further comprising:
2 receiving at least one of a Hypertext Markup Language (HTML),
3 Extensible Markup Language (XML), and Wireless Markup Language (WML) file to
4 present the browser display screen.

1 35. (New) The method of claim 34, wherein the at least one of the HTML,
2 XML, and WML file causes a first frame to be presented in the browser display screen,
3 the method further comprising invoking the applet in response to user selection of an
4 element in the first frame,
5 wherein the interactive interface is presented in a second frame in the
6 browser display screen.

1 36. (New) The article of claim 20, wherein the instructions when executed
2 cause the first system to communicate executable code stored in the database and
3 associated with the retrieved data to the client system, the executable code for presenting
4 the retrieved data in the client system.

1 37. (New) The system of claim 26, wherein the applet is invoked in response
2 to user selection of an element in a first frame of the browser screen,
3 the interactive portion being part of a second frame of the browser screen.

1 38. (New) The system of claim 37, wherein the browser screen comprises a
2 third frame to display a result page in response to a request for data in the database
3 system,
4 the result page containing at least one hyperlink selectable by a user to
5 retrieve an object from the database system.
